

ABSTRACT

Through spacing to each other, provided are an input/output waveguide element for introducing and deriving light and a light reflecting element for reflecting light. The light introduced by the input/output waveguide element is reflected by the reflecting element and returned to the input/output waveguide element. On a path of the light, a first lens, a multiple reflecting device and a second lens are provided with a spacing to one another. A multiple reflecting device has a first interface facing to the first lens and a second interface, or a surface opposite thereto, parallel with each other. The light entered the multiple reflecting device is multiplex-reflected upon the first interface and second interface depending upon a wavelength of the light. The multiple reflecting device has a third interface as a slant surface having an angle to the first interface of greater than 90° and smaller than 180° .